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Report to the Chairman,
Subcommittee on Defense,
Committee on Appropriations
House of Representatives

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AIR DEFENSE TRAINING

T-33 Aircraft Replacement Options

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National Security and
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October 1, 1986

The Honorable Bill Chappell, Jr.
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives

Dear Mr. Chairman:

In response to your April 18, 1986, request, we reviewed the Air Force's plan to retire obsolete T-33 aircraft owned by the Air National Guard. Specifically, you requested that we analyze the cost effectiveness of (1) replacing T-33 aircraft with T-39 aircraft and (2) using the contractor training alternative currently proposed by the Air Force. The Subcommittee was particularly concerned that any alternative provide at least as much capability to the Air National Guard as it has with the T-33 aircraft.

As agreed with your representative, we are providing this interim report for your use during the fiscal year 1987 budget process. A final report, which will include information identified below that is not available at this time, will be provided at a later date.

Background

Lockheed Corporation began building the T-33 aircraft in the late 1940s. As of June 1, 1986, 138 T-33s were still in use in the Air Force, 100 belonged to the active Air Force, and 38 to the Air National Guard. The T-33s are used primarily to perform airborne electronic countermeasure (ECM) training, which is commonly known in the Air Force as the Faker mission. The Faker mission provides for (1) live North American Air Defense Region exercises, (2) alert force reliability tests, (3) unit interceptor training, (4) weapons controller training, and (5) operational readiness inspections.

In May 1985, the House Committee on Armed Services, in its report on the Department of Defense Authorization Act for fiscal year 1986, expressed concern with the inadequacy of airborne ECM training for the Air National Guard. The report stated:

"The T-33 aircraft is extremely old and very expensive to operate and maintain. Worse, it lacks the range, payload, performance and electrical power capacity needed to provide other than the most rudimentary and artificial ECM training for...Air National Guard crews."

Recognizing that funding new replacement aircraft would be difficult, the Committee directed the Air Force "...to test the efficacy of airborne ECM training using an existing Air Force T-39 and existing Air Force ECM equipment." The Committee noted that the Air Force was in the process of retiring a large number of T-39 aircraft and believed they would be ideally suited for the Faker mission. The T-39 aircraft, known as the Sabreliner, was developed in the late 1950s.

In the subsequent House-Senate conference report, accompanying the Department of Defense Authorization Act for fiscal year 1986, the Air Force was directed to evaluate the feasibility and cost effectiveness of providing T-39 aircraft to the Air National Guard for ECM training purposes. The conferees requested a report no later than March 1, 1986.

On February 28, 1986, the Air Force responded, concluding that contracting ECM training would be more cost effective than using retired Air Force T-39s. The contractor would provide, maintain, and operate aircraft and equipment used for ECM training.

Cost Effectiveness of Replacing T-33s With T-39s

Air Force officials found the flying-hour costs to restore, operate, and maintain the T-39s would be higher than for the T-33s. They estimated costs to operate 60 T-39s or T-33s for the first 5 years, in inflated dollars, would be $401.3 million and $344.3 million, respectively, a difference of $57 million. We found the estimated costs for upgraded ECM equipment for both aircraft and the cost to retrieve and restore the T-39 aircraft were understated. After adjusting for these understatements, the estimated costs to operate 60 T-39s or T-33s for the first 5 years, in inflated dollars, would be $409.5 million and $351.3 million, respectively, a difference of approximately $58 million. The Air Force cost comparison was based on using the same number of each aircraft.[1] We were informed by Air Force and Air National Guard officials that the T-39, being more fuel efficient and capable of staying airborne longer than the T-33, could provide the required ECM training with fewer total flying hours and fewer aircraft. The Air Force, in performing its cost comparison, did not determine the optimum number of T-33 or T-39 aircraft. We were unable therefore, to determine the potential savings from the increased efficiency provided by the T-39 aircraft. We will address this matter in our final report.

[1]The use of 60 aircraft was based on information provided to Air Force Headquarters from a study prepared by the North Dakota Air National Guard. Air Force Headquarters did not verify how the number of aircraft was determined.

Cost Effectiveness of Contracting Out

At this time we are unable to determine if contracting out the Faker mission would be more cost effective than using T-39s operated by the Air Force and Air National Guard. The Air Force issued a contract solicitation on July 15, 1986, which contained a statement of work providing at least as much training capability as in 1986. However, receipt of bids was put on hold after a bidders' conference on August 8, 1986, raised concerns. The original solicitation called for a 9-month contract plus four 1-year options. The proposed contract length would have required the contractor to amortize his costs over a 9-month period rather than over a multi-year period. This, and other factors, such as payload and basing requirements, would have resulted in significantly higher flying-hour costs than the Air Force had estimated. The Air Force is amending the solicitation, with one of the changes being a multi-year contract with a 5-year minimum. Bids will not be received until mid-November 1986.

We were informed by Air Force and contractor officials that there could be a wide range of bids. Variables such as the number of flying hours required, type of aircraft utilized, basing locations, payload carried, and number of aircraft equipped with ECM affect the cost. The final cost could be higher or lower than the Air Force estimate provided to the Subcommittee in February 1986. Accordingly, we cannot determine the cost nor the capability to be provided until the bids are received. As agreed with your office, we plan to review the bids and report to you regarding the cost effectiveness of contracting.

In conducting our review, we interviewed officials at the Department of the Air Force Headquarters, the National Guard Bureau, the Air Force's Tactical Air Command, the North Dakota Air National Guard, and two defense contractors — Flight Systems, Incorporated, and Sabreliner Corporation. We verified the accuracy of selected financial information provided to us by the Air Force. Our work was performed during July and August 1986.

The contents of this report were discussed with Department of Defense officials and their views have been incorporated where appropriate.

Unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of the report. At that time, we will send copies to the Chairmen, Senate and House Committees on Appropriations, on Armed Services, and on Budget; and the Secretaries of Defense and the Air Force. Copies will also be provided to interested parties.

Sincerely yours,

Harry R. Finley
Senior Associate Director

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